|  | **sl\_no** | **ssc\_p** | **hsc\_p** | **degree\_p** | **etest\_p** | **mba\_p** | **salary** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Mean** | 108.0 | 67.303395 | 66.333163 | 66.370186 | 72.100558 | 62.278186 | 288655.405405 |
| **Median** | 108.0 | 67.0 | 65.0 | 66.0 | 71.0 | 62.0 | 265000.0 |
| **Mode** | 1 | 62.0 | 63.0 | 65.0 | 60.0 | 56.7 | 300000.0 |
| **Q1:25%** | 54.5 | 60.6 | 60.9 | 61.0 | 60.0 | 57.945 | 240000.0 |
| **Q2:50%** | 108.0 | 67.0 | 65.0 | 66.0 | 71.0 | 62.0 | 265000.0 |
| **Q3:75%** | 161.5 | 75.7 | 73.0 | 72.0 | 83.5 | 66.255 | 300000.0 |
| **99%** | 212.86 | 87.0 | 91.86 | 83.86 | 97.0 | 76.1142 | NaN |
| **Q4:100%** | 215.0 | 89.4 | 97.7 | 91.0 | 98.0 | 77.89 | 940000.0 |

**Analysis of Students' Academic Performance and Salary Data Using Percentiles**

We analyzed students' academic scores and salary data across various stages using percentiles (25th, 50th, 75th, 99th, and 100th) to understand the distribution and identify any outliers.

1. **Secondary School Certificate (SSC):**  
   The scores exhibit a steady and smooth progression from the 25th to the 75th percentile, with no significant jumps. This indicates an even distribution of marks and absence of outliers.
2. **Higher Secondary Certificate (HSC):**The performance improves gradually from the 25th to the 75th percentile. However, there is a sharp increase between the 75th percentile and the 99th percentile, revealing the presence of major outliers in the higher score range.
3. **Degree Scores:**The distribution is smooth and consistent, with values gradually increasing from the 25th percentile to the maximum score. This suggests steady academic performance among students at this level.
4. **Entrance Test:**Students performed well, with a median score of around 71%. The top performers scored above 97%, indicating strong preparation and no extreme outliers.
5. **MBA Course:**Scores are clustered closely, mostly between 58% and 66%, with the highest score near 78%. This reflects an average but consistent performance across students.
6. **Salary Data:**Most students received packages between 2.4 and 3 lakhs. However, a significant jump at the maximum salary of 9.4 lakhs highlights the presence of outliers, where a few students secured substantially higher offers than their peers.

**Conclusion:**  
Academic performance from SSC through MBA tells a smooth and consistent distribution with no major outliers, except in HSC, where notable outliers exist. Entrance test results demonstrate strong overall performance. Salary data, however, contains high outliers, indicating that a small number of students received exceptionally high salary packages compared to the majority.

**Outliers Present in HSC and Salary Variables**